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BEFORE THE  
**Federal Communications Commission**  
WASHINGTON, DC 20554

In the Matter of Federal-State Joint Board  
on Universal Service

) CC Docket No. 96-45  
)

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FEDERAL COMMUNICATIONS COMMISSION  
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**COMMENTS OF AIRTOUCH COMMUNICATIONS, INC.  
ON FEDERAL-STATE JOINT BOARD STAFF WORKSHOPS  
ON PROXY COST MODELS**

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AirTouch Communications, Inc. ("AirTouch")<sup>1</sup> hereby submits the following comments in response to the public notice soliciting comments with regard to the issues raised at the January 14 and 15, 1997, Commission staff workshops regarding adoption of proxy cost models to be used in determining universal service support levels.<sup>2</sup> These comments address several conceptual issues that the Commission must resolve in establishing a proxy cost model to ensure that the cost projections generated are appropriate for the purposes to which they will be put.

**I. SUMMARY**

Universal service policy will serve the public interest only if it generates incentives for carriers to provide telecommunications services efficiently. Proxy cost models have an important role to play in creating those efficiency incentives and in ensuring the successful implementation of universal service objectives. Moreover, when

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<sup>1</sup> AirTouch is a wireless communications company with interests in cellular, paging, personal communications services, satellite and other operations.

<sup>2</sup> "Federal-State Joint Board on Universal Service: Staff Workshops on Proxy Cost Models, CC Docket 96-45, DA 97-88, *Public Notice* (rel. January 15, 1997).

used to determine universal service support levels, the adoption of an appropriate proxy cost model can help reduce the huge consumer welfare costs that arise from taxing telecommunications consumers and providers to fund universal service programs.

AirTouch recognizes that the design and estimation of a proxy cost model raises myriad issues. Nevertheless, AirTouch believes that the fundamental objectives of universal service policy in general and the use of proxy cost models in particular must guide the Commission as it resolves these issues:

- Universal service support should be no larger than what is needed to cover the costs reasonably incurred to provide universal service on a forward-looking basis. This level of support compensates carriers for the true costs of universal service without rewarding inefficiency. It also provides the proper incentives for competitive entry.
- Universal service support levels should not be increased to finance new services (*e.g.*, broadband) that are not core universal service services. The Commission should not use accelerated depreciation rates to reflect the replacement of otherwise-usable facilities is driven by the local exchange carrier's desire to offer new or advanced services.
- The provision of local telephone services is likely subject to economies of scale. Splitting a given level of demand among multiple carriers might thus increase the average costs of each carrier in comparison with those of a monopoly provider. However, the Commission should reject calls to increase universal service support levels in the face of competitive entry. A more complete analysis demonstrates that, if anything, large-scale entry by new carriers indicates that a reduction of universal service support levels would be appropriate.

## **II. INTRODUCTION**

While proxy cost models can differ widely from one to another, two generic issues must be resolved in the development of any model: (1) what costs should be projected, and (2) how those costs should be projected. Clearly, the first set of issues must be addressed before the second set of issues can be resolved. To that end, AirTouch's

comments relate specifically to the issue of what costs should be projected by an appropriate proxy cost model. Consistent with the discussion below, AirTouch submits that the fundamental universal service principles of equity, nondiscrimination, and competitive neutrality require that the proxy cost model ultimately adopted by the Commission should project costs in an economically rational manner.

Universal service policy will serve the public interest only if it promotes the efficient provision of telecommunications services. A system under which carriers are subsidized on a reported-cost-plus or rate-of-return basis does not provide incentive for efficient cost reduction. Hence, it would be neither sound policy, nor consistent with the mandates of the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), to support universal service on a traditional cost-of-service basis. Instead, AirTouch urges the Commission to introduce market incentives wherever possible. The proper use of proxy cost models to set support payments to carriers serving high-cost areas can create price-cap like incentives for cost reduction.

In choosing among competing models, and in directing the models' sponsors to modify them, the Commission should be guided by three fundamental objectives of universal service policy:

1. To promote core services in those cases where the market outcome alone would not lead to penetration rates sufficiently high to meet Congressional intent.
2. To promote core services in a way that is fair, nondiscriminatory, and minimizes the burdens placed on telecommunications services consumers and providers.

3. To promote services and raise contribution in ways that are competitively neutral.

### **III. PROXY COST MODELS SHOULD PROJECT THE FORWARD-LOOKING COSTS OF AN EFFICIENT PROVIDER**

AirTouch supports the Joint Board's conclusion that it is in the public interest to use proxy cost models to estimate the forward-looking economic costs of service.<sup>3</sup> Use of a proxy model to calculate universal service support will promote efficiency while providing sufficient incentive to support infrastructure development and maintain quality service. By breaking the link between a carrier's reported costs and the subsidies that it receives, the use of proxy cost models will create price-cap-like incentives for efficient cost reduction.

As stated above, a fundamental issue to be addressed in the design of a proxy cost model is determining what costs the model should project. The economically appropriate standard is the cost level that would be attained by an efficient provider. Several reasons support this conclusion. First, in those instances where competitive entry is possible, this level of universal service support will promote efficient entry. Second, as a matter of both fairness and efficiency, universal service policy should not reward inefficiency. Consumers of telecommunications services face higher prices (and suffer welfare losses) as the result of the need to contribute toward universal service. There is no reason that

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<sup>3</sup> *Federal-State Joint Board on Universal Service*, CC Docket No 96-45, FCC 96J-3, *Recommended Decision* ¶¶ 275-277 (rel. November 8, 1996) ("*Recommended Decision*").

they should bear higher costs to subsidize incumbent local exchange carrier (“ILEC”) inefficiency.

On this last point, it is important to reject the claim raised during the proxy cost model workshops that the social costs of setting subsidies too low are greater than the social costs of setting subsidies too high. As AirTouch has demonstrated in its comments and reply comments, the consumer welfare losses that result from excessive support levels will be enormous.<sup>4</sup> Indeed, the social costs of setting subsidies too high significantly outweigh the costs of setting subsidies too low. Further, the Commission would have ample warning before a local exchange carrier’s ability to provide supported services would be seriously undermined, and thus the Commission would be able to make corrections before serious harm occurred if the initial support levels were indeed set too low.

Similar considerations establish that forward-looking costs are the appropriate standard for what a proxy cost model should attempt to project. Forward-looking costs are the true economic costs of providing supported services. Hence, the use of forward-looking costs adequately compensate carriers for ongoing investments in facilities needed to provide universal service, generate the proper incentives for efficient entry, and avoid placing greater tax burdens on consumers’ telecommunications services than are necessary to attain the objectives of universal service policy.

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<sup>4</sup> See AirTouch Comments on *Recommended Decision* at 13-14; AirTouch Reply Comments on *Recommended Decision* at 12-13.

#### **IV. PROXY COST MODELS SHOULD UTILIZE DEPRECIATION RATES APPROPRIATE FOR A NETWORK DESIGNED AND OPERATED TO PROVIDE SUPPORTED SERVICES**

The choice of depreciation rates for plant and equipment can have significant effects on the resulting cost estimates. This issue often is framed as a choice between *regulatory* depreciation rates and *economic* depreciation rates,<sup>5</sup> where the latter is interpreted as reflecting current market values of embedded plant and equipment.<sup>6</sup> ILECs typically argue that economic depreciation rates are the appropriate standard and are higher than depreciation rates determined by regulators.<sup>7</sup>

AirTouch agrees that economic depreciation rates provide the proper conceptual standard, but the critical factor is how one interprets “economic” in this context. Because the intent of universal service support payments is to subsidize the provision of certain core services, AirTouch submits that depreciation rates should reflect the ongoing market values of embedded plant and equipment of networks designed and operated to provide those core services.

The application of this standard can be understood by considering whether competition and technological progress have resulted in economic equipment lives that are considerably shorter than the physical lives. There are two primary reasons why it

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<sup>5</sup> Of course, to the extent that regulators have been attempting to estimate economic depreciation rates, regulatory depreciation rates may be the best available estimates of economic depreciation rates.

<sup>6</sup> The use of the term “embedded” in this context should not be interpreted as an endorsement of allowing local exchange carriers to recover embedded costs. This entire analysis should be conducted on a forward-looking basis (*i.e.*, the Commission has to project the value of plant and equipment once it is put in place).

<sup>7</sup> See, *e.g.*, Comments of Pacific Telesis Group on *Recommended Decision* at 7.



can be economically rational to replace a piece of capital investment before it is literally unusable: (1) the need to upgrade plant in order to offer new services; and (2) new equipment would have lower costs on a going-forward basis (*i.e.*, the capital costs plus maintenance costs of the new facilities would be less than the maintenance costs plus properly calculated capital costs of the embedded facilities).<sup>8</sup> To the extent that early replacement of plant and equipment is driven by the local exchange carrier's desire to provide new services other than those supported by universal service, there is no policy reason to support those upgrades with universal service funds.

Moreover, there are good economic efficiency reasons not to subsidize these upgrades. The new services are the ones triggering the investment costs. Hence, the principle of cost causation — which has widespread support among economists and among parties to this proceeding — indicates that the new services, not the universal service fund, should bear the costs of the upgrades. Requiring the new services to cover the costs that they trigger will provide incentives for efficient LEC investment; by contrast, subsidizing the network upgrades with funds that were intended to support universal service will inefficiently distort LEC investment and will increase the taxes levied on telecommunications service consumers and providers to generate contribution. As AirTouch has documented, these taxes harm consumers and distort consumption

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<sup>8</sup> The capital costs of embedded facilities should be calculated by applying the appropriate cost of capital to the salvage value of the facilities. It is a well-established economic principle that sunk capital costs should not affect the replacement decision.

levels. Therefore, AirTouch submits that the higher depreciation rates are *not* appropriate for calculating universal service support levels.<sup>9</sup>

The argument that “competition” has shortened the economic lives of plant and equipment does not compel a contrary conclusion. If competition is shortening economic lives by creating pressures to offer new services, increased depreciation rates should not be reflected in proxy cost models used to calculate universal service support levels because such services are not supported universal services. Further, there is little or no competition to serve the vast majority of residential subscribers, and while meaningful local exchange competition may take root in urban areas, a carrier serving a rural area with little demand growth and even less competition will not face pressure to replace the copper in the ground. As a consequence, longer economic lives and lower depreciation rates should be used to estimate the costs in those geographic areas where market conditions (*e.g.*, demand growth) create less pressure for network upgrades.

#### **V. PROXY COST MODELS SHOULD NOT INFLATE SUPPORT LEVELS IN RESPONSE TO LEC MARKET SHARE BELOW 100 PERCENT**

An issue raised in the second day of the workshops was whether universal service support levels should be adjusted to account for possible cost increases due to the division of traffic among competing carriers. The apparent rationale for such a proposal

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<sup>9</sup> There is an alternative means by which the Commission could take into account the fact that new services are the ones triggering the capital investments. Under this alternative approach, the Commission would utilize the shorter economic lives (and higher depreciation rates) but would exclude the capital costs of the upgrades from the calculation of universal service costs.

is the likelihood that the provision of local telephone services is subject to economies of scale. When production is characterized by economies of scale, splitting a given level of demand among multiple carriers will increase the average costs of each carrier in comparison with those of a monopoly provider. As a consequence, some participants in the workshop discussions appeared to believe that the Commission should either (a) build the baseline support levels generated by the proxy cost model on the assumption that the subsidized carrier has a market share of less than 100 percent, or (b) institute a policy under which the level of universal service support that a subsidized carrier receives rises as its market share falls.

The Commission should reject suggestion (a) out of hand. Today, ILECs' market shares for the relevant services are essentially 100 percent. Moreover, there is little near-term prospect of significant local loop competition in the majority of high-cost areas.

The arguments against (b) are less direct, but no less compelling. At the most fundamental level, the issue is the following: If the level of universal service support is too low, then why are other carriers entering the market to take away business? If an ILEC is losing a sufficiently large share of the market to affect its average costs of service, then one of two cases must hold. One possibility is that CLECs qualify for universal service support and have found the support levels are adequate to make service provision profitable. The other possibility is that the CLECs do not qualify for universal service support but the ILECs' prices and service levels offer so little value to consumers that the CLECs can still compete successfully.<sup>10</sup> In either event, there manifestly is no

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<sup>10</sup> An ILEC might argue that the problem is one of "cream skimming," whereby CLECs enter the low-cost portions of the high-cost area. The proper way to deal with this issue

need to raise universal service support levels to promote the provision of service. Indeed, the case for lowering the level of support is greater than the case for raising it.

Lastly, there is a technical point that should be considered. It is important to distinguish between market share and service volumes. As telecommunications markets continue to grow, a carrier's market share could fall while its volume grows. The latter is what is relevant for economies of scale. Thus, even if the Commission accepted the incorrect argument that a carrier should be compensated for the loss of economies of scale, the Commission should not adopt a policy that adjusts universal service support levels on the basis of market share.

**VI. PROXY COST MODELS SHOULD NOT CALCULATE EXCESSIVE LEVELS OF COMMON COSTS OR ALLOCATE EXCESSIVE PROPORTIONS OF SUCH COSTS TO UNIVERSAL SERVICES**

Local exchange networks are used to provide a variety of services and, consequently, the provision of services by these networks gives rise to common costs which proxy cost models must appropriately project. AirTouch agrees with those members of the Commission staff who concluded that the proxy models currently before the Commission "do not currently offer adequate justification for their calculation of forward-looking joint and common costs."<sup>11</sup>

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is to reduce the size of the geographic area labeled high cost. Failure to narrow the area will otherwise result in the ILECs' receiving high-cost support to serve low-cost subscribers.

<sup>11</sup> "The Use of Computer Models for Estimating Forward-Looking Economic Costs: A Staff Analysis," DA97-56, at 24 (rel. January 9, 1997).

There is also the question of how these costs should be allocated among different services. The Federal-State Joint Board concluded that the allocation of common costs should be “reasonable.”<sup>12</sup>

This standard is overly vague and the Commission should instead define clearly what constitutes a reasonable allocation of common costs to universal service. AirTouch submits that one allocation approach deserving serious consideration is to allocate no common costs to services supported by universal service funds. This approach would correspond to making only the *incremental costs* of universal service subject to support payments. This approach would also ensure that LECs have incentives to continue to invest in the facilities needed to provide the supported services and would ensure that a LEC is no worse off for having provided services subject to universal service support. At the same time, it would ensure that the tax burdens levied on telecommunications service providers and consumers are no larger than necessary to achieve public policy objectives.

## **VII. CONCLUSION**

In sum, AirTouch submits that the proxy cost model used in the calculation of universal service support levels must be economically sound to realize the full benefits of universal service programs. As discussed above, a sound proxy cost model must: (1) project the forward-looking economic costs of an efficient provider; (2) utilize economic depreciation rates that are appropriate for a network designed and operated to provide supported services; (3) avoid inflating support levels in response to local exchange


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<sup>12</sup> *Recommended Decision* at ¶¶ 276 and 277.

carrier market shares below 100 percent; and (4) neither calculate excessive levels of common costs, nor allocate excessive proportions of any common costs to those services subject to universal service support.

Respectfully submitted,

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January 24, 1997

## **CERTIFICATE OF SERVICE**

I, Shelia L. Smith, do hereby certify that copies of the foregoing "Comments of AirTouch Communications, Inc. on Federal-State Joint Board Staff Workshops on Proxy Cost Models" were served this 24th day of January, 1997 by first class United States mail, postage prepaid to the following:

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